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Conference Abstract

Composting - Recent Investigations for Specimen Preparation

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Abstract

Preparators and taxidermists spend a great deal of time preparing osteological materials before these can enter collections. The different preparation methods can have variable results and even the type of specimen being prepared can impact on its overall finish after preparation.

This can often result in a lot of extra preparation work to finish or tidy up specimens. Common methods for preparation include maceration, dermestid beetles, burial and composting. Most techniques require initial preparation (flensing) and subsequent work that often introduces more chemicals or handling of the specimens.

Each method has uncontrolled elements and difficulties. Dermestids are sometimes temperamental in their preferences and require a lot of care to maintain. Maceration often involves additives like detergents or follow-up chemical treatments. Burial is often highly uncontrolled, leading to problems of drainage and the build-up of unwanted pH environments. Marine mammals or larger specimens present further challenges, being oily or too large to process onsite. When these types of specimens are buried they must often be further processed before entering the collections. All of these different processes can have an impact on the long-term preservation of the individual specimens, which is a concern for conservators.

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A separate project was set up to investigate how illegally traded bones (tiger in this case) are affected by various environmental ("preparation") conditions. A series of stations was set up simulating different environments, one being a compost. This started off further investigations into composting as a viable routine preparation technique.

We will contrast the recent recovery of three buried beaked whales with composting trials of a frozen unflensed beaked whale skull and a small whole dolphin. The composting techniques seem to allow greater control, and produced excellent results. Our visual results will be complemented with data from the compost site, such as temperature loggers. This is currently an ongoing investigation and it is hoped that further data will be collected over time, such as pH testing of soil samples from burial sites and compost sites.

Data from two trials at the Australian Museum – a larger outdoor controlled compost heap and smaller plastic tub composts – will be presented.

This project highlights the importance of data collection during specimen preparation. The pathways a specimen goes through before entering a collection have an impact on its long-term preservation and research potential. These data need to be retained.

Keywords

Preparation, Conservation, Composting

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